

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning on line 6 of page 1 as follows:

The present invention relates to a digital signal processor and, more particularly, to one that shows ~~the~~ an effect when applied to a servo control of an optical disk apparatus.

Please amend the paragraph beginning on line 13 of page 1 as follows:

In this optical disk apparatus, a reflected light of a laser beam, which faced on the disk recording surface through a field lens 93 installed in an optical pickup 92 and which is emitted, is employed so as to read out data recorded in an optical disk 91. The quantity of light of the reflected light detected by employing a sensor such as a photo detector 94 is converted from analog data to digital data by an A/D converter 95 and is inputted to a digital signal processor 96. While the quantity of light of the reflected light detected varies in amounts that are influenced by the disk rotations, external vibrations, or the like, the quantity of light of the reflected light has to be kept at a large value so as to read out data correctly. To realize the same, it is necessary to perform a focus control and a tracking control.

Please amend the paragraph beginning on line 1 of page 2 as follows:

The focus control is to control the field lens against the surface deflection of the disk so that a distance between the field lens 93 installed in the optical pickup and the disk recording surface should be kept ~~in the~~ constant and that the disk recording surface should be located within the depth of focus of the laser. The tracking control is one that controls the field lens 93 against decentering of the disk so that the optical spot should scan on the track correctly. The focus control and the tracking control are realized by detecting a focus error signal and a tracking error signal which respectively represent whether or not focusing and tracking are performed correctly from the reflected light, calculating a focus driving amount and a tracking driving amount by digital operations, and driving the field lens 93 by signals passing through D/A converters 97C and 97D, respectively. As servo controls required for the optical disk apparatus, there are a spindle control which controls a spindle motor 98 for rotating the optical disk, a traverse control for driving the optical pickup 92, and the like, other than the focus control and the tracking control.

Please amend the paragraph beginning on line 1 of page 7 as follows:

In addition, it ~~B~~ is not possible to perform the processing C, for which the processing is demanded from the arithmetic device 11, with interrupting the processing A which is under execution by the arithmetic device 12.

Please amend the paragraph beginning on line 11 of page 7 as follows:

According to ~~claim 1~~ a first aspect of the present invention, there is provided a digital signal processor comprising: a main arithmetic device which generates a task demand; an auxiliary arithmetic device which receives the task demand from the main arithmetic device and performs the task; the auxiliary arithmetic device being provided with a reservation processing register for setting a task from the main arithmetic device even when the auxiliary arithmetic device is performing a processing; a clear circuit for clearing the task stored in the reservation processing register after the task set in the reservation processing register is performed; and the task demanded from the main arithmetic device being performed after the auxiliary arithmetic device terminated the task which has just been under execution.

Please amend the paragraph beginning on line 5 of page 8 as follows:

According to ~~claim 2~~ a second aspect of the present invention, in the digital signal processor as defined in ~~claim 1~~, ~~wherein the first aspect~~, the auxiliary arithmetic device has a priority judgment circuit for determining the priority for performing the processing of the task, for which the processing is demanded, to execute the processing, and the auxiliary arithmetic device performs the task in accordance with the priorities of respective tasks determined by the priority judgment circuit.

Please amend the paragraph beginning on line 16 of page 8 as follows:

According to ~~claim 3~~ a third aspect of the present invention, in the digital signal processor as defined in ~~claim 1~~, ~~wherein the first aspect~~, the auxiliary arithmetic device has an interruption signal generation circuit for generating an interruption signal interrupting the processing which is under execution, and when receiving the task demand from the main arithmetic device, the auxiliary arithmetic device interrupts the processing and performs the task demanded from the main arithmetic device.

Please amend the paragraph beginning on line 7 of page 9 as follows:

Figure 2 is a timing chart of the digital signal processor which is provided with the ~~reserv~~
reservation processing register according to the first embodiment.

Please amend the paragraph beginning on line 15 of page 18 as follows:

Figure 5 is a block diagram illustrating the construction of a digital signal processor according to a third embodiment. In figure 5, reference numerals 11 and 12 denote arithmetic devices, numeral 13 denotes an external bus, numerals 14 and 16 denote program memory areas, numerals 15 and 17 denote arithmetic logic units, numeral 18 denotes a task list, numeral 19 denotes an external start-up factor, numeral 21 denotes a program counter, numeral 22 denotes an instruction decoder, numeral 23 denotes a program halt notification signal, numeral 24 denotes a termination status storage register, numeral 25 denotes a processing demand generation circuit, numeral 26 denotes a reservation processing register, numeral 27 denotes a clear circuit, numeral 50 denotes a processing pointer B, and numeral 51 denotes an interrupt signal generation circuit. The structure is almost similar to that in figure 1 of the first embodiment. Differences from the structure in figure 1 of the first embodiment is that the processing pointer B 50 is ~~provided~~ provided in place of the processing pointer 20 and that the interruption signal generation circuit 51 is newly added.

Please amend the paragraph beginning on line 15 of page 1 as follows:

Meanwhile, when the interruption signal is notified from the interrupt signal generation circuit 51, the processing pointer B 50 copies the address in the reservation processing register 26 to the program counter 21. Then, since change the indication destination to the task list 18 is not changed, the arithmetic device 12 performs the processing demanded from the arithmetic device 11, and when the program halt notification signal 23 is notified from the instruction decoder 22, the processing pointer B 50 increments the indication destination to the task list 18 by 1, and judges whether the execution mode of the new indication destination is capable of being executed or not, and when it is judged to be capable of being executed, it copies the address in the task list 18 to the program counter 21.